

REMARKS

Summary

Claims 1, 2, 4-11, 17, 18, 20-25 and 27-30 are pending in this application. Claims 19 and 26 have been cancelled. Although Applicant disagrees with the broad grounds of rejection set forth in the Office Action, Applicant has amended independent claims 1, 17 and 24 in order to facilitate prosecution on the merits. Support for the above amendments can be found in the specification at least at paragraphs [0070] – [0072]. As such, no new matter has been added. Favorable reconsideration and allowance of the pending claims are requested.

Examiner Interview

Applicants would like to thank Examiner Geib for conducting a telephone interview with Applicant's representative on June 2, 2010. During the interview, Examiner Gieb and Applicant's representative discussed the independent claims, the applied reference(s), and the grounds of rejection. The substance of the interview is reflected by the foregoing amendments and the following remarks.

Claim Rejections - 35 U.S.C. § 103

Claims 1, 2, 4, 7-11, 17, 18, 20, 22-25, 27, 29 and 30

Claims 1, 2, 4, 7-11, 17, 18, 20, 22-25, 27, 29 and 30 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over "Architecture and Application of a Dynamically Reconfigurable Hardware Array for Future Mobile Communications Systems" to Alsolaim et al. (hereinafter "Alsolaim") in view of United States Patent No. 4,791,603 to Henry (hereinafter "Henry"). Applicant respectfully traverses the rejection, and requests reconsideration and withdrawal of the rejection.

According to MPEP § 2143, three basic criteria must be met to establish a prima facie case of obviousness. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to

make the claimed combination and the reasonable expectation of success must both be found in the prior art and not based on applicant's disclosure. *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991). See MPEP 706.02(j).

Applicant submits that the cited references, taken alone or in combination, fail to teach each and every element recited in claims 1, 2, 7-11, 17-18, 20, 22-25, 27, 29 and 30 and thus they define over the cited references. For example, with respect to claim 1, the cited references fail to teach at least the following language:

wherein said control unit comprises said control unit state machine module to be configured in accordance with said fuse map, said control unit state machine to output an operation number address, and a control unit lookup table to be configured with said table content data.

According to the Office Action, the above-recited language is disclosed by Alsolaim at section 3.1. This assertion is respectfully traversed.

Applicant respectfully submits that claim 1 defines over Alsolaim and Henry because the cited references fail to disclose, teach or suggest at least wherein said control unit comprises said control unit state machine module to be configured in accordance with said fuse map, said control unit state machine to output an operation number address, and a control unit lookup table to be configured with said table content data. As provided for in the Specification, the control unit state machine module to be configured in accordance with said fuse map, the control unit state machine to output an operation number address, and a control unit lookup table to be configured with said table content data provide a significant technical advantages by having a higher performance than software systems and offering more flexibility than hardware systems.

Applicant respectfully submits that claim 1 defines over Alsolaim because Alsolaim fails to disclose, teach or suggest at least wherein said control unit comprises said control unit state machine module to be configured in accordance with said fuse map, said control unit state machine to output an operation number address, and a control unit lookup table to be configured with said table content data.

Alsolaim teaches a reconfigurable processing unit and a reconfigurable processing unit controller for guiding all data manipulations and transfers inside the RPU. *See*

Section 3.1. Alsolaim further teaches a look-up table when performing fast multiplication operations. *See id.*

Claim 1 teaches wherein said control unit comprises said control unit state machine module to be configured in accordance with said fuse map, said control unit state machine to output an operation number address, and a control unit lookup table to be configured with said table content data.

The Office Action states that Alsolaim does not teach the control unit having a control state machine module configured with a fuse map. *See Office Action, page 3.* Therefore, Alsolaim cannot not teach a control unit state machine module to be configured in accordance with said fuse map and the control unit state machine to output an operation number address. Furthermore, Alsolaim does not teach that a control unit lookup table to be configured with said table content data. Consequently, Alsolaim fails to disclose, teach or suggest every element recited in claim 1.

Henry does not overcome the deficiencies of Alsolaim. Applicant respectfully submits that claim 1 defines over Henry because Henry also fails to disclose, teach or suggest at wherein said control unit comprises said control unit state machine module to be configured in accordance with said fuse map, said control unit state machine to output an operation number address, and a control unit lookup table to be configured with said table content data.

Henry teaches a dynamically reconfigurable array logic. *See abstract.* More specifically, Henry teaches a RAM programmable logic array of bits, each bit comprising a fuse connection between logic elements. *See abstract and column 2, lines 14-31 and column 3, lines 44-66.*

Claim 1 teaches wherein said control unit comprises said control unit state machine module to be configured in accordance with said fuse map, said control unit state machine to output an operation number address, and a control unit lookup table to be configured with said table content data.

Henry does not teach a control unit which comprises a control unit state machine module to be configured in accordance with said fuse map and the control unit state machine to output an operation number address. Henry merely teaches a RAM

programmable logic array comprising a fuse connection between logic elements. Furthermore, nowhere does Henry teach a control unit lookup table to be configured with said table content data. Consequently, the cited references, whether taken alone or in combination, fail to disclose, teach or suggest every element recited in claim 1.

Absence from the cited references of the above-mentioned claim elements negates obviousness. Accordingly, Applicant respectfully requests removal of the obviousness rejection with respect to claim 1. Furthermore, Applicant respectfully requests withdrawal of the obviousness rejection with respect to claims 2, 4 and 7-11, which depend from claim 1, and therefore contain additional features that further distinguish these claims from the cited references.

Independent claims 17 and 24 recite elements similar to those recited in claim 1. Therefore, Applicant respectfully submits that claims 17 and 24 are not obvious and are patentable over the cited references for reasons analogous to those presented with respect to claim 1. Accordingly, Applicant respectfully requests removal of the obviousness rejection with respect to claims 17 and 24. Furthermore, Applicant respectfully requests withdrawal of the obviousness rejection with respect to claims 18, 20, 22-23, 25, 27, 29 and 30 that depend from claims 17 and 24, and therefore contain additional features that further distinguish these claims from the cited references.

Claims 5, 6, 21 and 28

Claims 5, 6, 21 and 28 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over “Architecture and Application of a Dynamically Reconfigurable Hardware Array for Future Mobile Communications Systems” to Alsolaim et al. (hereinafter “Alsolaim”) in view of United States Patent No. 4,791,603 to Henry (hereinafter “Henry”) and further in view of United States Patent No. 4,862,407 to Fette et al. (hereinafter “Fette”). Applicants respectfully traverse the rejection, and requests reconsideration and withdrawal of the rejection.

As recited above, Applicants respectfully submit that Alsolaim and Henry fail to disclose each and every element recited in independent claims 1, 17 and 24. Furthermore, Applicants respectfully submit that Fette fails to remedy the above

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identified deficiencies of Alsolaim and Henry. Consequently, Applicants respectfully submit that claims 5, 6, 21 and 28 define over Alsolaim, Henry and Fette, taken alone or in combination. Accordingly, Applicants respectfully request removal of the obviousness rejection with respect to claims 5, 6, 21 and 28.

CONCLUSION

It is believed that claims 1, 2, 4-11, 17, 18, 20-25 and 27-30 are in condition for allowance. Accordingly, a timely Notice of Allowance to this effect is earnestly solicited.

Applicants do not otherwise concede, however, the correctness of the Office Action's rejection with respect to any of the limitations of the independent claims and dependent claims discussed above. Accordingly, Applicants hereby reserve the right to make additional arguments as may be necessary to further distinguish the claims from the cited references, taken alone or in combination, based on additional features contained in the independent or dependent claims that were not discussed above. A detailed discussion of these differences is believed to be unnecessary at this time in view of the basic differences in the independent claims pointed out above.

The Examiner is invited to contact the undersigned to discuss any matter concerning this application.

The Office is hereby authorized to charge any additional fees or credit any overpayments under 37 C.F.R. § 1.16 or § 1.17 to the Deposit Account No. 50-4238.

Respectfully submitted,

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Rebecca M. Bachner, Reg. No. 54,865
Under 37 CFR 1.34(a)

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